

## NATURAL RESOURCES CONSERVATION SERVICE CONSERVATION PRACTICE STANDARD

### BRUSH MANAGEMENT

(acre)

#### CODE 314

#### DEFINITION

Removal, reduction, or manipulation of non-herbaceous plants.

#### PURPOSES

This practice may be applied as part of a conservation management system to accomplish one or more of the following purposes:

- \* Restore natural plant community balance, consistent with the ecological site and associated state and transition models.
- \* Create the desired plant community, consistent with the ecological site and associated state and transition models.
- \*\* Restore desired vegetative cover to protect soils, manage erosion, reduce sediment, improve water quality and enhance stream flow.
- \* Maintain or enhance wildlife habitat including that associated with species of concern.
- \* Improve forage accessibility, quality and quantity for livestock.
- \* Protect life and property from wildfire hazards.

#### CONDITIONS WHERE PRACTICE APPLIES

On grazed range, native or naturalized pasture, pasture, hay land, wildlife land, recreation land, and watershed protection lands where removal reduction, or manipulation of woody and/or succulent (non-herbaceous) plants is required to address one or more of the purposes above. For management of woody plants on woodland and forest sites see Forest Stand Improvement (666). For herbaceous species management see Pest Management (328).

#### CRITERIA

##### **General Criteria Applicable To All Purposes Named Above**

Brush management will be designed to achieve the desired plant community in woody plant species composition, structure, density, canopy (or foliar) cover or height.

Brush Management will be applied in a manner to achieve the desired population density of the target woody and/or succulent species and protection of desired species. This will be accomplished by mechanical, chemical, or biological methods either alone or in combination.

For grazinglands, Prescribed Grazing (528) shall be applied before and after planned treatment to ensure desired results are achieved and maintained for the practice lifespan. or Use Exclusion (472) shall be applied to ensure desired response from treatments. See Practice Standards & Specifications 528 and/or 472 for grazing management requirements after Brush Management

Follow-up management or other treatments necessary to achieve objectives shall be addressed.

Brush management will be planned and applied in a manner that it will not adversely affect threatened or endangered species or their habitats.

Alternatives will be developed that avoid or minimize adverse effects on State Species of Concern and their habitats, and decision makers will be encouraged to adopt such alternatives.

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Evaluate soil erosion potential and difficulty of vegetation establishment when choosing a method of management that causes soil disturbance.

Evaluate the appropriate time period for treatment. Some brush management activities can be effective when applied within a single year; others may require multiple years of treatment(s) to achieve desired objectives.

Reseeding of native species will be necessary where less than 25% similarity index to the ESD plant community is present or where less than 10% basal cover of desired species remnants are present pre-treatment. Use practices Range Seeding (550) where no significant soil disturbance or landscape shaping is present. Use Critical Area Planting (342) where significant soil disturbance or landscape shaping is present.

The method of brush management with the least potential hazard to man, animals, and the environment, will be used meeting the conservation needs and objective of the operator. The need for brush management is governed by the land-use objectives, alternatives in management, the kind and amount of infestation by brush species, as well as considerations of the anticipated impacts upon the environment, cultural resources, and landscape.

Brush management **will be applied** only to sites:

- 1 With soils having potential for producing the desired plant community
- 2 When brush invasion/infestation exceeds the threshold for the historic climax plant community for the site. (Refer to the ecological site description (ESD).)
- 3 Which will receive grazing management and other maintenance measures that ensure success.
- 4 When non-brush pastures of the operating unit are already under grazing management that assures an improving trend.
- 5 Brush management will be planned in a manner that it will not adversely affect threatened or endangered species, their habitats and/or critical habitats

Brush management **will not be applied** to sites:

- 1 Where removal will result in sustained accelerated erosion.
- 2 Where the benefits are not commensurate with the costs and the objectives of the landowner.
- 3 Where removal will be adverse to the long-term productivity or optional uses of the land. See woodland Technical Note No. 1 (revised April 2, 1981. RE: Pinyon-Juniper Management.)  
[http://www.nm.nrcs.usda.gov/technical/tech-notes/forestry\\_wood/wood-1.pdf](http://www.nm.nrcs.usda.gov/technical/tech-notes/forestry_wood/wood-1.pdf)
- 4 Where grazing management is inadequate on non-brush areas of the operating unit.
- 5 When there will be long term negative impact to environmental, cultural or landscape resources.

Treatment will be designed prior to implementing the practice and will meet the recorded land-use objectives including environmental, cultural and landscape considerations:

- 1 When objectives include recreation area improvement. Refer to specifications for practice 562 - Recreation Area Improvement.
- 2 In areas of mixed stands of brush for which approved methods have been established, priority of treatment will be that prescribed for the species that is causing the greatest problem. Methods should be selected to reduce the greatest number of undesirable brush species with least harm to the desirable brush species.
- 3 It may be desirable to plan more than one control method for the same species or a control for two or more species under certain conditions.
- 4 Refer to Practice 645 - Wildlife Upland Habitat Management for pertinent wildlife planning considerations.

The computation technique used will be documented to substantiate the degree of infestation (Table 1) for the brush to be manipulated. The following techniques will be used.

**To determine canopy cover of shrub and tree species** use; New Mexico Range Technical Note No. 28 (Rev. September 1970), describes a method to determine canopy cover using the canopy cover intercept method. Please use this method where canopy cover intercept is listed as the inventory method in table 1.

<http://www.nm.nrcs.usda.gov/technical/tech-notes/range/range28.pdf>

**To determine plants per acre of shrub species:** Three 1/10 acre plots (each plot to measure 6.05' x 720' or 12.1' x 360 or 66' x 66' or 37.25 feet in radius circle) placed in an area representative of the proposed treatment area is acceptable where the average of the three is used. See "Belt Transect for measuring perennial invasive plants and woody species" portion of the Agricultural Research Service, Jornada Experimental Range Monitoring Manual for Grassland, Shrubland and Savanna Ecosystems

[http://usda-ars.nmsu.edu/monit\\_assess/PDF\\_files/Quick\\_Start.pdf](http://usda-ars.nmsu.edu/monit_assess/PDF_files/Quick_Start.pdf)

**To determine density of tree species** The National Forestry Handbook, 2004 describes the use of the zig zag transect for determining tree density. This method is only to be used on Juniper or mixed pinion/juniper/ or mixed p/j/ponderosa stands.

Zig zag; [ftp://ftp-fc.sc.egov.usda.gov/NSSC/National\\_Forestry\\_Handbook/nfh\\_2004.pdf](ftp://ftp-fc.sc.egov.usda.gov/NSSC/National_Forestry_Handbook/nfh_2004.pdf)

The average tree spacing is found by dividing the total of distances in the zigzag transect by the number of trees sampled.

The number of trees per acre = 43560/Avg. tree spacing squared. Only enough data needs to be gathered in the zigzag transect to yield the average tree spacing for a representative stand sample area. Minimum of 20 trees per transect and at least 1 line per density class in the specification.

**Alternative method to determine density of tree species** 1/10 acre plots (each plot to measure 66' x 66' or 37.25 feet in radius circle) Minimum to characterize the treatment unit is 1 plot placed in an area representative of each density class in the specification.

**Additional Criteria for Restoring Natural Plant Community Balance consistent with the ecological site and associated state and transition models.**

Treatments need to be consistent with dynamics of the ecological site(s) states and plant community phases. The area of treatment must have the potential and capability to support the planned community.

Brush management on native rangelands shall be planned in such a way as to not remove more woody species than what is listed in the "Percent Canopy Cover by Height Class" section of the desired state and plant community phase in the Ecological Site Description for the site.

**Additional Criteria for Restoring Desired Vegetative Cover to Protect Soils, Manage Erosion, Reduce Sediment, Improve Water Quality and Enhance Stream Flow**

Choose a method of management that causes the least amount of soil disturbance if soil erosion potential is high and revegetation is slow or uncertain leaving the site vulnerable to long term exposure to soil loss.

In conjunction with other conservation practices, the number, sequence and timing of soil disturbing operations shall be managed to maintain soil quality and maintain soil loss at or below the soil loss tolerance (T) or any other planned soil loss objective.

**Additional Criteria to Maintain, Modify or Enhance Wildlife Habitat**

If one of the purposes is to maintain, modify, or enhance wildlife habitat, Wetland Wildlife Habitat Management (644) and/or Upland Wildlife Habitat Management (645) will be planned.

Brush Management will be planned and applied in a manner to meet the habitat requirements of the wildlife of concern.

### **Additional Criteria to Improve Forage Accessibility, Quality and Quantity for Livestock**

Timing and sequence of brush management in a pasture and/or the entire operating unit shall be planned in coordination with the prescribed grazing plan.

### **Additional Criteria for Managing Fuel Loads**

Manage undesirable woody plants in a manner that creates the desired plant community thereby producing the desired fuel load conditions.

A variety of management activities can be used to control undesirable woody plants and reduce wildfire hazards at the same time.

See the Firebreak (394) practice standard and specification for criteria and considerations that will aid in designing a management strategy to reducing wildfire hazards.

### **Additional Criteria for Chemical Pesticide Use:**

The cooperators will be advised on:

- 1 Safe handling and disposal of herbicides to avoid injury to humans, domestic animals, desirable plants and fish, or other wildlife, and any contamination of nearby crops.
- 2 Federal, state and county laws and regulations governing the use of herbicides and labeling. The uses for which a herbicide has been registered are included in the information provided on the label of the commercial product. By reading the label, determine the proper uses for which the product is intended. Herbicides approved for specified uses in New Mexico are listed in the, **Chemical Weed and Brush Control for New Mexico Rangelands, NMSU Cooperative Extension Service • Circular 597.** Additional information on treatment for specific species can be found in the "**New Mexico Brush Busters**" publications. Refer to the label on the commercial product for detailed information concerning dosage application and precautions. Certain precautions may be noted in the

publication that are not included on the label but are applicable to local conditions in New Mexico.

- 3 It is legal to use registered mixtures of herbicides; however, only a few mixtures of herbicides are registered.
- 4 Proper certification to apply the herbicide.
- 5 Note that label data on herbicides are maximal values and also represents manufacturers guaranteed product efficacy rates. Lower marginal rates must be approved by the ASTC/Technical Services.
- 6 Environmental Risk Analysis (WIN-PST) and interpretation of analysis and identification of appropriate mitigation techniques must be integrated into the conservation plan and discussed with the operator.

### **Additional Criteria for Prescribed Burning:**

Fire is a natural part of several ecosystems and prescribed burning can be used effectively to reduce or remove species such as sagebrush or juniper. When prescribed burning is used on root-sprouting brush species such as oak, maple, rabbitbrush, yellowbrush, horsebrush, or willows, follow-up with other methods will be necessary for effective control. Proper herbicide application is an effective follow-up method.

Burning can be used without seeding where desirable fire tolerant plants make up 15 percent or more of the total composition. When seeding is needed, burning is a good pretreatment to prepare the area for seeding.

If this method is used, the standards and specifications for Prescribed Burning (338) will apply.

### **Additional Criteria Relating to Degree of Reduction (Percent Kill):**

The degree of reduction will depend upon the method of treatment selected, the objectives of the cooperator, and the environmental consequences. The Ecological Site Description (ESD) can be used to set a target level of brush reduction.

A general guideline is to expect 80% or more of the target species to be killed or destroyed

within the treatment area at the conclusion of all treatments. In some cases other resource considerations (such as wildlife habitat needs or socio-economic concerns) may dictate a lesser percentage of density reduction. All such decisions must be recorded in the Brush Management job sheet.

The percent of target species reduction can be calculated by conducting a series of transects in the pre treatment state and comparing that to the post treatment numbers in the same transect lines. See table 1 in the Specification of the proper transect method for each target species.

### **Additional Criteria for Reducing Wildfire Hazards.**

#### **CONSIDERATIONS**

Consider impacts and consequences to obligate species (species dependent on the target woody species) when significant changes are planned to existing plant communities.

Consider consulting with a biologist to assess impacts to species when planning block treatments. In general, treatments that create a mosaic are more desirable.

Consider impacts to wildlife food supplies when planning the method and amount of Brush Management. For instance, many brush management chemicals also cause short term suppression of the forb community.

State issued licenses may be required when using chemical pesticide treatments.

If seeding is necessary use applicable practices (e.g. Range Planting (550), Pasture and Hay Planting (512), Critical Area Planting (342)) to identify seedbed preparation, species, rates, timing, etc.

If woody vegetation is to be removed by prescribed fire, use Prescribed Burning (338) in place of this standard, if woody vegetation is to be removed to facilitate a land use change, use Land Clearing (460) in place of this standard.

It is the policy of the Natural Resources Conservation Service (NRCS) to encourage the use of pest-control methods having the least potential hazard or adverse impact on man, animals, and the environment.

NRCS conservationists have the responsibility to document plans in sufficient detail to predict the effects of the proposed brush management upon the environment, cultural resources, and landscape.

Conservationists are to:

- 1 encourage cooperators to fully consider present and future land use opportunities in relation to brush management, including expected effect on wildlife habitat, potential recreation use, and ecological site;
- 2 determine that the landowner understands the technical requirements, possible hazards, and costs of the practice and that the landowner will apply the kind of grazing management and maintenance measures that will insure success; and;
- 3 help land users understand the environmental impacts of brush management, both positive and negative, on-site and off-site.

While the final decisions to proceed on any practice or management system rests with the landuser or landowner, the conservationist must provide complete, factual information in order to assist the decision maker to:

- 1 Understand the extent and value of all of the resources which would be impacted.
- 2 Evaluate both the short-term and long-term, on-site and off-site, impacts of proposed actions.
- 3 Select the alternative, which has the greatest positive impacts on social, economic, and environmental resources.
- 4 Recognize the opportunity to select an alternative with high potential for improving multiple resources.
- 5 Recognize the difficulty of vegetation establishment when choosing a method of control that causes soil disturbance.
- 6 Recognize that the timing and sequence of brush management in a pasture and/or the entire operating unit should be planned to ensure needed grazing management.

In order to accomplish these planning considerations, the conservationist should

prepare evaluations of the potential impacts of the selected action or alternative upon:

- 1 Current and potential future forage production.
- 2 Current and potential future wood products.
- 3 Current and potential levels of erosion and water quality.
- 4 Current and potential future values of wildlife habitats and wildlife populations.
- 5 Current and potential future recreational uses.
- 6 Current and potential future impacts on the landscape; expressed as the visual impact and sensitivity level of the landscape as a function of the viewing public.
- 7 The kinds and amounts of grazing management and maintenance measures which will be needed to ensure the success of vegetative changes. The possible costs, marginal dollar reaction, and economic hazards will be evaluated. These evaluations will be thoroughly discussed with the decision maker.

Infestation is based on the percent of crown canopy of the dominant and associated species, or on the number of plants per acre. See Table I for a definition of the degree of infestation for certain species.

A heavy infestation indicates that brush is thick enough to suppress a quality plant cover and hinder movement of some classes of livestock.

A medium infestation indicates that brush is significantly limiting quality plant cover.

A light infestation indicates brush presence is recognizable but not in sufficient quantity to appreciably limit quality plant cover.

For some land uses, brush may be desirable. For others, it may be desirable to reduce some species to prevent later infestations that may require more costly measures.

### PLANS AND SPECIFICATIONS

Plans and specifications for the treatment option(s) selected by the decision maker will be prepared for each pasture, field, or

management unit where Brush Management will be applied.

Prepare brush management plans and specifications that conform to all applicable federal, state, and local laws. These documents will contain the following data as a minimum:

1. The cooperators objectives of the control measures and the acceptable degree of reduction agreed upon to meet the objectives.
2. Species to be treated.
3. Pretreatment target plant population levels, method used to determine those levels and treatment methods evaluated and selected method identified.
4. Maps, drawings, and/or narratives detailing areas to be treated, ecological sites to treat and those to avoid, pattern of treatment (if applicable), and areas to be left undisturbed.
5. A monitoring plan that identifies what will be measured (including timing and frequency) and will document the changes in the plant community (compare with objectives).
6. Any mitigation planned for environmental, cultural, or landscape resources.
7. Prescription for deferment and or prescribed grazing.
8. Check-out procedure and certification of completion.
9. Follow up measures, if needed

**For Mechanical Treatment Methods:** Plans and specifications will include items 1 through 4, above, plus the following:

- Types of equipment and any modifications necessary to enable the equipment to adequately complete the job.
- Dates of treatment to best effect management of target species.
- Operating instructions (if applicable)
- Techniques or procedures to be followed

**For Chemical Treatment Methods:** Plans and specifications will include items 1 through 4, above, plus the following:

- Herbicide name (Chemical name not trade name)
- Rate of application in Pounds of active ingredient per acre.
- Spray volume in gallons per acre.
- Acceptable dates of application to best effect management of target species, mitigate effects to non-target species and dampen reinvasion
- Mixing instructions (if applicable)
- Any special application techniques, timing considerations or other factors that must be considered to ensure the safest, most effective application of the herbicide
- Reference to label instructions
- Documentation of the use of environmental risk analysis tools (such as WIN-PST Soil Pesticide Interaction Loss Potential and Hazard Rating Report) in formulating alternatives with the client.

When a chosen alternative has significant potential to negatively impact important water resources. (e.g., WIN-PST “Extra High”, “High” or “Intermediate” soil/pesticide loss or human risk ratings). Then an appropriate set of mitigation techniques must be put in place to address risks to humans and non-target plants and animals.

A WIN-PST “Extra High” rating for an identified water resource concern requires all possible mitigation in addition to available IPM that minimizes the use of this pesticide to the maximum extent possible.

**For biological treatment methods**, plans and specifications will include:

- Kind of biological agent or grazing animal to be used
- Timing, duration, and intensity of grazing or browsing
- Desired degree of grazing or browsing use for effective management of target species
- Maximum allowable degree of use on desirable non-target species
- Special precautions or requirements when using insects or plants as management agents

- See Prescribed Grazing (528) Specification titled: “Supplement 1 – Brush and Weed Pest Management With Goats” for details on Brush Management using Goats.

## OPERATION AND MAINTENANCE

**Operation:** Brush Management practices shall be applied using approved materials and procedures. Operations will comply with all local, state, and federal laws and ordinances.

Success of the practice shall be determined by evaluating regrowth or reoccurrence of target species after sufficient time has passed to monitor the situation and gather reliable data. Length of evaluation periods will depend on the woody species being monitored, proximity of propagules (seeds, branches, and roots) to the site, transport mode of seeds (wind or animals) and methods and materials used.

**Maintenance:** Following initial application, some regrowth, resprouting, or reoccurrence of brush should be expected. Spot treatment of individual plants or areas needing re-treatment should be done as needed while woody vegetation is small and most vulnerable to less radical and risky treatment procedures.

Where this practice is used to restore grazed range or wildlife land it must be understood that Brush Management is an accelerating practice used to restore an ecological site's plant community to the desired natural range of variation. Once this is achieved it takes more than spot spraying to maintain site health. Proper management of the desired plant community will maintain this practice for its' planned life span. See Prescribed Grazing (528) for guidance on plant community maintenance on grazed lands and Upland Wildlife Habitat Management (645) for guidance on plant community maintenance where wildlife habitat is the major concern.

After the natural range of variability for the site has been restored, Prescribed Fire (338) can be used in addition to management practices to maintain the desired plant community.

Where it is not otherwise specified, the treatment and the time interval between treatments will be determined by the conservationist and the decision maker.



Areas where brush has been manipulated must be managed in a way that is compatible with the treatment and land-use objectives.

The NRCS conservationist will present alternatives for the protection period needed to provide the greatest benefit to the species to be increased.

1. Grazing management will meet prescribed grazing standards and specifications (528)
2. Drought following treatment, low vigor of desirable grasses, invasion of the treated area by undesirable plants and other abnormal conditions may require extension of the protection period beyond the minimum required under the above conditions. The NRCS conservationist will be expected to encourage the cooperator to extend the protection periods whenever the above conditions exist.
3. The degree to which the key forage species will be used following protection/ deferment will be in accordance with specifications for prescribed grazing.
4. Areas of significant size disturbed by mechanical brush treatment will be reseeded unless it is determined that natural revegetation by desirable species will occur within a reasonable period, normally two or three years. In the Southern Desert Land Resource Area, seeding may be feasible only on selected sites, usually having over 13 inches of precipitation. Site selection will be made by the cooperator with the assistance of the NRCS conservationist.
5. When seeding is necessary, prescribe specifications for seeding practices at the time brush management is planned. It is recommended that native species be used when appropriate. It is recommended that species composition and content be as close a match as possible to the Eco-System description (ESD) for the area.
6. Follow-up treatment may be necessary.

#### REFERENCES:

Range Technical Notes -- #17 through 22, 32, 35, and 45 (Interagency Reports 1, 2, 3, and 4)

<http://www.nm.nrcs.usda.gov/technical/tech-notes/range.html>

Chemical Weed and Brush Control for New Mexico Rangelands, NMSU NMSU Cooperative Extension Service • Circular 597, ,

[http://cahe.nmsu.edu/pubs/\\_circulars/CR\\_597.pdf](http://cahe.nmsu.edu/pubs/_circulars/CR_597.pdf)

Brush and Weed Control on New Mexico Ranges, NMSU, Agri Exp. Sta. Guide B-806

[http://www.cahe.nmsu.edu/pubs/\\_b/b-806.html](http://www.cahe.nmsu.edu/pubs/_b/b-806.html)

Methods of Controlling Pricklypear Cactus, NMSU, Agri Exp. Sta. Guide B-800

Control Cholla Cactus, NMSU, Agri Exp. Sta. Guide B-804

[http://cahe.nmsu.edu/pubs/\\_b/b-804.pdf](http://cahe.nmsu.edu/pubs/_b/b-804.pdf)

Snakeweed Control With Herbicides, NMSU, Agri Exp. Sta. Bulletin BL-706

Snakeweed: Problems and Perspectives, NMSU, Agri Exp. Sta. Bulletin-BL-751.

Vegetation Change Following Big Sagebrush Control With Tebuthiuron, NMSU, Agri Exp. Sta. Bulletin BL-764

Juniper Control with Soil-Applied Herbicides, NMSU, Agri Exp. Sta. Bulletin BL-772

<http://cahe.nmsu.edu/pubs/research/horticulture/BL772.pdf>

Management of Mesquite, Creosotebush, and Tarbush with Herbicides in the Northern Chihuahuan Desert, NMSU, Agri Exp. Sta. Bulletin BL-775.

Mesquite Control in New Mexico, NMSU, Agri Exp. Sta. Circular-CR-505.

Considerations for Prescribed Burning, NMSU, Agri Exp. Circular-CR-522.

[http://www.cahe.nmsu.edu/pubs/\\_circulars/Cr-522.pdf](http://www.cahe.nmsu.edu/pubs/_circulars/Cr-522.pdf)

1994 Summary of Range Brush Control Research, NMSU, Agri Exp. Sta. RITF-RITF-38.



Guidelines for Prescribed Fire In New Mexico,  
New Mexico State Forestry, January 1992.

NM State Forestry COMMERCIAL TIMBER  
HARVESTING REQUIREMENTS

[http://www.emnrd.state.nm.us/fd/documents/19-20-4\\_NMAC\\_eff09142007.pdf](http://www.emnrd.state.nm.us/fd/documents/19-20-4_NMAC_eff09142007.pdf)

NM NM State Forestry Forest Practices  
Guidelines

<http://www.emnrd.state.nm.us/fd/ForestMgt/documents/ForestPracticesGuidelines2008.pdf>

John P. Taylor and Kirk C. McDaniel, 1998,  
Restoration of Saltcedar (Tamarix sp.)-Infested  
Floodplains on the Bosque del Apache National  
Wildlife Refuge, Weed Technology 12:345-352.

Keith W. Duncan & Kirk C. McDaniel, 1998,  
Saltcedar (Tamarix spp) Management with  
Imazapyr, Weed Technology, 12:337-344.

Collaborative Conservation Strategies for the  
Lesser Prairie-Chicken and Sand Dune Lizard  
in New Mexico. Findings and  
Recommendations of the New Mexico LPC/SDL  
Working Group

<http://nwcoss.org/Resources/LPC SDL Conservation Strategy CD.pdf>

**"New Mexico Brush Busters" publications:**

Mesquite Control: Individual Treatments BC-1

<http://cahe.nmsu.edu/pubs/b/BC-1.pdf>

Mesquite Control: Aerial Application BC-2

<http://cahe.nmsu.edu/pubs/b/BC-2.html>

Juniper Control: Individual Plant Treatments  
BC-3

<http://cahe.nmsu.edu/pubs/b/BC-3.pdf>

Snakeweed Control: Aerial Application BC-4

<http://cahe.nmsu.edu/pubs/b/BC-4.pdf>

**Additional NMSU published Guides:**

Control Cholla Cactus Guide B-804

<http://cahe.nmsu.edu/pubs/b/b-804.pdf>

Brush and Weed Control on NM Ranges Guide  
B-806

<http://cahe.nmsu.edu/pubs/b/b-806.pdf>

Control Perennial Snakeweeds Guide B-815

<http://cahe.nmsu.edu/pubs/b/b-815.pdf>

Current issues of NMSU, Agri Exp. Sta.  
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all County Agricultural Agent Offices.